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EXAMINER

LAYE, JADE O

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,238

Applicant(s)

AN, YOUNG-SANG

Examiner

Jade O. Laye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-27 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 28 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/3/01.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 8/3/2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statement.

Drawings

The drawings are objected to because:

- a. Item # 238 is misspelled.
- b. and, Figures 1-3 are not designated "Prior Art."

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

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and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1-3, 5, 7, 18, 19, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by McCalley et al. (US Pat. No. 5,119,188).

As to claim 1, McCalley discloses a communication system wherein a telephone management subsystem receives media requests from a user, transfers those requests to a central processing unit, and relays the desired media to the user through a headend. (Col. 5, Ln. 54-67 through Col. 6, Ln. 1-24). (The examiner interprets a local broadcasting center to encompass a headend, which of course, is capable of servicing a local area, county, sub-division, etc. Moreover, the Digital Audio-Video Presentation Display System of McCalley can form part of the headend or some other local broadcasting system.) Accordingly, McCalley et al anticipate each and every limitation of claim 1.

As to claim 2, McCalley further teaches the use of a telephone management system, which analyzes touch-tone signals entered by the user in order to forward the request to the central processing unit. (Col. 5, Ln. 57-63). Accordingly, McCalley et al anticipate each and every limitation of claim 2.

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As to claim 3, McCalley further teaches the system contains a digital mass storage subsystem containing a variety of multimedia data (Col. 4, Ln. 52-67 through Col. 5, Ln. 1-12), a telephone management system for processing user requests (Col. 5, Ln. 57-63), and a digital audio-video presentation display system (Fig. 1), which transmits the requested encoded signal to the headend. Moreover, it is inherent that the telephone management system provide some form of user interaction, or i.e. comments, when the user makes a telephonic request. Accordingly, McCalley et al anticipate each and every limitation of claim 3. (The examiner would like to note the USPTO interprets the "...at least one..." language recited in a number of applicant's claims to be anticipated by any reference that teaches at least one of the recited limitations.)

As to claims 5, McCalley further teaches the system contains a digital mass storage subsystem containing a variety of multimedia data, which represents multimedia code. (Col. 4, Ln. 52-67 through Col. 5, Ln. 1-12).

As to claim 7, McCalley teaches each stored data object (for example, multimedia presentation object) is encoded with information (i.e., multimedia data code) regarding presentation data object names, client names, client telephone numbers, and a local operating centers in order to facilitate rapid retrieval. (Col. 8, Ln. 54-62 ; Col. 9, Ln. 25-68 thru Col. 10, Ln. 1-2). "Multimedia data code" as recited in claim 7 could broadly be interpreted to mean any data relating to multimedia objects. Moreover, it is inherent this information be routed, via a signal, to other system components in order to process the user request. Therefore, McCalley anticipates each and every limitation of claims 5 and 7. (In the alternative, the transmitted multimedia signal itself is "multimedia data code." Therefore, multimedia data code is always being transmitted.)

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As to claim 18, the limitations set forth therein are only combinations of limitations recited in claims 1 and 3 above. In as much as they correspond, claim 18 is analyzed and rejected as previously discussed.

As to claim 19, the limitations set forth therein are only combinations of limitations recited in claims 1 and 3 above. In as much as they correspond, claim 18 is analyzed and rejected as previously discussed.

Claim 25 corresponds to claim 19 and is analyzed and rejected as previously discussed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCalley in view of Mayer. (US Pat. No. 5,774,534).

Claim 4 recites the communication system of claim 3, wherein the summary of the local broadcasting center comprises at least one selected from the group consisting of a local broadcasting center code, a local area code, and a local TV broadcasting channel code. As discussed above, McCalley contains all limitations of claim 3, but fails to specifically recite the limitations of claim 4. However, within the same field of endeavor, Mayer discloses a similar system in which a local broadcasting station is identified by area code. (Col. 6, Ln. 58-67 through Col. 7, Ln. 1-22). Therefore, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems of McCalley and Mayer in order to provide an efficient method of identifying a local headend to multimedia distribution.

3. Claims 6 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCalley in view of Barker. (US Pat. No. 6,141,682).

Claim 6 recites the communication system of claim 3, wherein said controller comprises: a router for receiving multimedia data from at least one information service provider (ISP) through the internet; and a multimedia processor for generating at least one multimedia code, storing the multimedia code, and providing the multimedia data to said at least one local broadcasting center. As discussed above, McCalley contains all limitations of claim 3, but fails to teach the use of a router used for receiving multimedia data from the Internet. (Note: As discussed above, McCalley teaches his system is capable of processing multimedia code, storing multimedia code, and providing the multimedia code to a local headend. (Col. 4, Ln. 52-67 through Col. 5, Ln. 1-12 ; Col 5, Ln. 54-67 through Col. 6, Ln. 1-24)). However, within the same field of endeavor, Barker teaches that it is commonly known in the art to utilize routers to provide Internet service to users. (Col. 1, Ln. 42-44). Therefore, it would have been obvious to

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one of ordinary skill in this art at the time of applicant's invention to combine the systems of McCalley and Barker to provide a multimedia communication system capable of also providing Internet access to users.

Claim 22 recites the identical limitations of claim 1, except it limits receiving the customer request via the Internet. As discussed above, McCalley contains all limitations of claim one, but fails to specifically recite the limitation addressing the Internet. However, within the same field of endeavor, Barker discloses various systems of the prior art, which are capable of sending request upstream via the Internet. (Figs. 1 and 2). (Furthermore, applicant's disclosure cites this same technology as prior art.) Therefore, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to further modify the combined systems of McCalley and Barker to include sending upstream requests via the Internet in order to provide a system compatible with today's Internet technology.

4. Claims 8, 9, 12, 14-16, 20, 21, 24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCalley in view of Kim et al. (US Pat. No. 6,083,009).

Claim 8 recites the communication system of claim 1, wherein said at least one local broadcasting center comprises:

- a. a database for storing multimedia data, which are used for propagating through a local TV. broadcasting channel;
- b. a receiver;
- c. a schedule manager for detecting multimedia data from the database corresponding to the broadcasting applying signal, and for controlling the propagation time of the detected data;

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- d. a converter for converting the detected digital data into analog multimedia data;
- e. caption editor;
- f. a broadcasting controller for controlling the propagation of the analog broadcasting signal to a plurality of customer premise equipment limited service area through the local TV broadcasting channel.

As discussed above, McCalley contains all limitations of claim 1, and further teaches the following: As to “a”, McCalley teaches the use of a storage database. (Col. 2, Ln. 53-67 thru Col. 3, Ln. 1-2). As to “b”, it is inherent the system of McCalley contain a receiver at the local broadcasting center (i.e., headend, hub/node, etc.) in order to receive the incoming signal. As to “c”, McCalley teaches the use of an image controller, which controls the broadcast of the audio and video signals in order to ensure synchronous transmission. (i.e., it controls the propagation time of the data) (Col. 1, Ln. 19-27 ; Col. 13, Ln. 13-20 ; Col. 14, Ln. 6-10). In order to perform this function, it is inherent the image controller be capable of detecting the incoming signal. As to “d”, McCalley discloses his system is capable of converting the digital signal into analog format in order to facilitate transmission to the end-user. (Col. 4, Ln. 66-68 thru Col. 5, Ln. 1-12 ; Col. 16, Ln. 31-38). Lastly, as to “f”, it is inherent that any headend (as disclosed in McCalley) be capable of demultiplexing the incoming signal and determining which end user is to receive which signal (i.e., controlling the propagation of the signal).

But, McCalley fails to disclose the use of a caption editor. However, within the same field of endeavor, Kim discloses a similar system, which utilizes a caption editor. (Col. 3, Ln. 21-31). Therefore, it would have been obvious to one ordinarily skilled in this art at the time of

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applicant's invention to combine the systems of McCalley and Kim in order to provide a communication system capable of also transmitting closed captioning data.

Claim 12 recites a combination of limitations all contained in claims 1, 3, and 8. For the sake of redundancy, neither the limitations of claim 12 nor the rejections of claims 1, 3, and 8 will be reiterated. Accordingly, claim 12 is analyzed and rejected as previously discussed.

Claims 24 and 27 correspond to claim 12 and are analyzed and rejected as previously discussed.

Claim 16 corresponds to claim 8's limitation directed to the caption editor. In view of the teaching of Kim discussed above, it is inherent the caption editor be capable of inserting the captioning data onto the signal. Therefore, claim 16 is analyzed and rejected as previously discussed.

Claim 9 recites the communication system of claim 8, wherein said schedule manager comprises a buffer for storing the analog broadcasting signal temporarily in order to propagate it through the local TV broadcasting channel in order of customer's request. As discussed above, McCalley and Kim contain all limitations of claim 8 and McCalley further teaches the use of a scheduler, which schedules the requests of the user. (Col. 12, Ln. 5-57 ; Col. 14, Ln. 55-68 thru col. 15, Ln. 1-2). (Note: the examiner interprets "schedules" to denote scheduling the transmission of the requests in the order they were received.) Lastly, McCalley also teaches the system contains a frame store unit, which stores and replays the video information to the requesting subscriber. (Col. 2, Ln. 53-68 thru Col. 3, Ln. 1-2). Therefore, the combined systems of McCalley and Kim contain all limitations of claim 9.

Claim 14 recites the method of claim 12, wherein the summary of multimedia data is a code for representing multimedia data. As discussed above, McCalley and Kim contain all limitations of claim 12, and further contain the limitation recited in claim 14 as well. (Claim 14 corresponds to claim 5, and is analyzed and rejected as previously discussed).

Claim 15 contains the same limitations as recited in claim 7 (except each depends from a different independent claim). Therefore, claim 15 is analyzed and rejected as previously discussed under claim 7, but only with respect to those limitations specifically recited in claim 7.

Claim 20 recites a combination of limitations recited in claims 3 and 8 above (except they depend from different independent claims). In so much as they correspond, claim 20 is analyzed and rejected as previously discussed.

Claim 21 recites a combination of limitations recited in claims 3 and 8 above (except they depend from different independent claims). In so much as they correspond, claim 21 is analyzed and rejected as previously discussed.

Claim 26 corresponds to claim 21 and is analyzed and rejected as previously discussed.

5. Claims 10, 13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCalley in view of Kim as applied to claim 8 and 12 above, and further in view of Mayer.

Claim 10 recites the communications system of claim 8, wherein the caption data comprises at least one selected from the group consisting of an ARS phone number, a local area code, a local broadcasting center code, a TV channel code, a serviceable multimedia data code, a standby multimedia data code, and a playing time of the standby multimedia data. As discussed above, the combined systems of McCalley and Kim contain all limitations of claim 8, specifically the limitation directed to the caption editor, which is used to display data words

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stored in memory (note: it is inherent these data words be encoded into the data stream). (Kim, Col. 3, Ln. 21-31). Also as discussed under the rejection of claim 4 above, the combined systems of McCalley and Mayer disclose a similar system capable of identifying a user/local area by the area code, which is encoded into the transmission signal. Since the caption editor of Kim can, in essence, display any data words encoded in the transmission stream, it would also be capable of displaying the area code of the user/local area if it too were encoded into the stream, as taught by McCalley and Mayer. Therefore, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the systems of McCalley, Kim, and Mayer in order to provide a system capable of displaying the area code of the broadcasting center as closed caption data.

Claim 13 recites a method for propagating multimedia data as in claim 12, wherein the summary of the local broadcasting center comprises at least one selected from the group consisting of a local broadcasting center code, a local area code, and a TV channel code. As discussed above, McCalley and Kim contain all limitations of claim 12, but fail to teach the limitations of claim 13. However, within the same field of endeavor, Mayer discloses a system in which the local area code of the user/local area is encoded into the signal. (Col. 6, Ln. 58-67 through Col. 7, Ln. 1-22). Accordingly, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to further modify the combined system of McCalley, Kim, and Mayer to include the teaching addressing the local area code of the user in order to provide a system capable of deciding which local headend best serves the client.

Claim 17 corresponds to the limitations recited in claim 10 (except they both depend from differing independent claims). In as much as they correspond, claim 17 is analyzed and rejected as previously discussed under claim 10.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCalley in view of Kim as applied to claim 8 above, and further in view of Tsuda. (US Pat. No. 4,365,267).

Claim 11 recites the communication system of claim 8, wherein said local broadcasting center further comprises at least one broadcasting monitor in order to check screen conditions and transmission conditions of the multimedia data. As discussed above, McCalley and Kim contain all limitations of claim 8, but fail to disclose the limitations of claim 11. However, within the same field of endeavor, Tsuda discloses a system capable of monitoring the operational state of a terminal unit. (Col. 1, Ln. 38-56). Therefore, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems of McCalley, Kim, and Tsuda to provide a system capable of monitoring screen/transmission conditions in order to facilitate certain functions, such as billing and signal quality.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCalley in view of Kim as applied to claim 12 above, and further in view of Barker.

Claim 23 recites the same limitations as recited in claim 12, except the request is sent upstream via the Internet. As discussed above, McCalley and Kim contain all limitations of claim 12, but fail to specifically teach the use of the Internet. However, within the same field of endeavor, Barker discloses a similar system, which utilizes the Internet as a back channel. (Col. 1, Ln. 42-45 and Fig. 2). Accordingly, it would have been obvious to one ordinarily skilled in

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the art at the time of applicant's invention to combine the systems of McCalley, Kim, and Barker in order to provide a system capable of transmitting user requests via the Internet.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- a. Dunn et al (US Pat. No. 6,584,613) disclose a TV viewer response system using calling codes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jade O. Laye whose telephone number is (571) 272-7303. The examiner can normally be reached on Mon. 7:30am-3pm, Tues.-Fri. 7:30-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner's Initial's JK
January 24, 2005.


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